

DESIGN PANEL NO. 34 10-9-97

SIMULATION GATEWAY PHASE II THREAD - Scott Estes

OVERVIEW

The Simulation Interface to the RTCN Thread purpose is to provide the capability to connect the SGOS Math Models to the CLCS RTCN without the use of front end gateways or VSI equipment.

The CLCS Simulation Interface to the RTCN does not provide SGOS Math Model connectivity for the Desktop Debug Environment being started for Thor. The CLCS Desktop Debug environment will be supported by the Simulation Rehost effort.

ACTIONS

ACTIONEE **DUE DATE** **STATUS**

No actions required

*Approved

TEST APPLICATION SCRIPT PATHFINDER ASSESSMENT - Ray Bessenaire

OVERVIEW

The purpose of the pathfinder is to provide the initial Test Application Script (TAS) function design. The TAS function provides a capability to define a sequence of events required for a given test. TAS are implemented in a manner that is clearly understandable and usable by system engineering and test management personnel and analogous to printed test procedures.

ACTIONS

ACTIONEE **DUE DATE** **STATUS**

No action required

*Approved

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SHUTTLE DATA CENTER SYSTEM BUILD CERTIFICATION - Tony Perry

OVERVIEW

This delivery is to provide initial use of components of the Shuttle Data Center (SDC) as a replacement for CDS.

ACTIONS

ACTIONEE **DUE DATE** **STATUS**

No action required

*Approved

DATA FUSION SPECAIL TOPIC PRESENTATION - Brain Bateman

OVERVIEW

The following options were discussed; the options chosen at the meeting are marked “**Selected**”.

DATA FUSION OPTION 1

This option assumes the bulk of data fusion will be done by application software running in the CCP. It allows for global fusion to be run on the DDP. A user will submit requirements and a central development group will implement the global fusion application.

- Algorithms submitted to development group for implementation
- Single Global Fusion application internally grouped according To User Class
- Separate utility to check FD's against TCID
- Fusion program submitted to test build for particular TCID
- Custom utility to extract fusion algorithm for viewer

DATA FUSION OPTION 2

Option 2 automates all process associated with global Data Fusion. It requires building extensive custom code.

- Each algorithm maintained by responsible person
- Separate utility to check FDs against TCID
- Algorithms checked into CM by responsible person
- List of required algorithms for a mission submitted to build
- Custom utility program collects algorithms and creates a single CS fusion application
- Custom utility to extract fusion algorithm for viewer
- Fusion program submitted to test build for particular TCID

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DATA FUSION OPTION 3 **Selected** (possibly with the editor from option #2)

Option 3 is similar to option 1 but requires the user to submit the entire application, instead of just the requirements. The application will be run on the DDP unless the user requests another platform.

- Global fusion application for each User Class
- Created, maintained, and submitted by each User Class
- Separate utility to check FDs against TCID
- Fusion program submitted to test build for particular TCID from each User Class just like any other EIM application
- Custom utility to extract fusion algorithm for viewer

RUNTIME CONSIDERATION

- Where descriptive text is stored for on-line access
 - Central database
 - Distributed database **Selected**
- Where input FD Values are stored for viewer
 - Instrument the fusion algorithm itself for real-time inquiry
 - Separate process to keep track of FD data for each algorithm in real-time
 - Use SDC to retrieve the FD values that were in effect at the time of fusion calculation **Selected** Use CVT for Thor
- Activation and inhibit fusion
 - Every application executing data fusion algorithms must include a method to turn individual algorithms processing on or off
 - Disable publishing new values at the DDP on individual fusion FDs **Selected**
- Allow for more than one producer of an FD (if desired)
 - Publish FD changes from any producer* **Selected**
 - Publish changes only from highest priority producer that is actively producing fusion*

* Note: Authentication done at higher level